

Surface Water Discharge Permit

In Accordance With the
National Pollutant Discharge Elimination System (NPDES)

This NPDES Permit Certifies That

*CITY OF COLUMBIA
METRO WWTP*

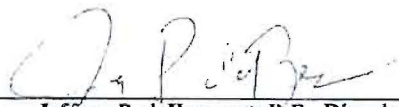
has been granted permission to discharge treated wastewater from a facility located at

*1200 Simon Tree Lane
Columbia, SC 29201*

to receiving waters named

Congaree River

in accordance with effluent limitations, monitoring requirements and other conditions set forth in Parts I, II, III, IV and V hereof. This permit is issued in accordance with the provisions of the Pollution Control Act of South Carolina (S.C. Code Sections 48-1-10 et seq., 1976), Regulation 61-9 and with the provisions of the Federal Clean Water Act (PL 92-500), as amended, 33 U.S.C. 1251 et seq., the "Act."



Jeffrey P. deHessonet, P.E., Director
Water Facilities Permitting Division
Bureau of Water

Issued: September 14, 2010

Expires: September 30, 2015

Effective: November 11, 2010

Permit No.: SC0020940



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PART I. Definitions

Any term not defined in this Part has the definition stated in the South Carolina Pollution Control Act (PCA) or in "Water Pollution Control Permits", R.61-9 or its normal meaning.

- A. The "Act", or CWA shall refer to the Clean Water Act (Formerly referred to as the Federal Water Pollution Control Act) Public Law 92-500, as amended means the Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Pub. L. 92-500, as amended by Pub. L. 95-217, Pub. L. 95-576, Pub. L. 96-483, and Pub. L. 97-117, 33 U.S.C. 1251 et seq. Specific references to sections within the CWA will be according to Pub. L. 92-500 notation.
- B. The "arithmetic mean" of any set of values is the summation of the individual values divided by the number of individual values.
- C. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.
- D. A "composite sample" shall be defined as one of the following four types:
 - 1. An influent or effluent portion collected continuously over a specified period of time at a rate proportional to the flow.
 - 2. A combination of not less than 8 influent or effluent grab samples collected at regular (equal) intervals over a specified period of time and composited by increasing the volume of each aliquot in proportion to flow. If continuous flow measurement is not used to composite in proportion to flow, the following method will be used: An instantaneous flow measurement should be taken each time a grab sample is collected. At the end of the sampling period, the instantaneous flow measurements should be summed to obtain a total flow. The instantaneous flow measurement can then be divided by the total flow to determine the percentage of each grab sample to be combined. These combined samples form the composite sample.
 - 3. A combination of not less than 8 influent or effluent grab samples of equal volume but at variable time intervals that are inversely proportional to the volume of the flow. In other words, the time interval between aliquots is reduced as the volume of flow increases.
 - 4. If the effluent flow varies by less than 15 percent, a combination of not less than 8 influent or effluent grab samples of constant (equal) volume collected at regular (equal) time intervals over a specified period of time. (This method may be used with prior Department approval.)

All samples shall be properly preserved in accordance with Part II.J.4. Continuous flow or the sum of instantaneous flows measured and averaged for the specified compositing time period shall be used with composite results to calculate mass.

- E. "Daily discharge" means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of

measurement, the daily discharge is calculated as the average measurement of the pollutant over the day.

- F. "Daily maximum" is the highest average value recorded of samples collected on any single day during the calendar month.
- G. "Daily minimum" is the lowest average value recorded of samples collected on any single day during the calendar month.
- H. The "Department" or "DHEC" shall refer to the South Carolina Department of Health and Environmental Control.
- I. The "geometric mean" of any set of values is the N^{th} root of the product of the individual values where N is equal to the number of individual values. The geometric mean is equivalent to the antilog of the arithmetic mean of the logarithms of the individual values. For purposes of calculating the geometric mean, values of zero (0) shall be considered to be one (1).
- J. A "grab sample" is an individual, discrete or single influent or effluent portion of at least 100 milliliters collected at a time representative of the discharge and over a period not exceeding 15 minutes and retained separately for analysis.
- K. The "instantaneous maximum or minimum" is the highest or lowest value recorded of all samples collected during the calendar month.
- L. The "monthly average", other than for fecal coliform and enterococci, is the arithmetic mean of all samples collected in a calendar month period. The monthly average for fecal coliform and enterococci bacteria is the geometric mean of all samples collected in a calendar month period. The monthly average loading is the arithmetic average of all daily discharges made during the month.
- M. "POTW" means a treatment works as defined by section 212 of the Clean Water Act, which is owned by a state or municipality (as defined by section 502[4] of the CWA). This definition includes any devices and systems used in the storage, treatment, recycling and reclamation of municipal sewage or industrial wastes of a liquid nature or a regional entity composed of two (2) or more municipalities or parts thereof. It also includes sewers, pipes and other conveyances only if they convey wastewater to a POTW Treatment Plant. The term also means the municipality, as defined in section 502(4) of the CWA, which has jurisdiction over the Indirect Discharges to and the discharge from such a treatment works.
- N. "Practical Quantitation Limit (PQL)" is the concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. It is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method-specific sample weights, volumes, and processing steps have been followed. It is also referred to as the reporting limit.
- O. "Privately owned treatment works" means any device or system which both is used to treat wastes from any facility whose operator is not the operator of the treatment works and is not a POTW.

- P. "Quarter" is defined as the first three calendar months beginning with the month that this permit becomes effective (unless otherwise specified in this permit) and each group of three calendar months thereafter.
- Q. "Quarterly average" is the arithmetic mean of all samples collected in a quarter.
- R. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
- S. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
- T. "Weekly average", is the arithmetic mean of all the samples collected during a one-week period. For self-monitoring purposes, weekly periods in a calendar month are defined as three (3) consecutive seven-day intervals starting with the first day of the calendar month and a fourth interval containing seven (7) days plus those days beyond the 28th day in a calendar month. The value to be reported is the single highest of the four (4) weekly averages computed during a calendar month. The weekly average loading is the arithmetic average of all daily discharges made during the week.
- U. "Ultimate Oxygen Demand" (UOD) is the oxygen consumed by aquatic microbes in metabolizing the remaining organic and nitrogenous matter in the effluent from the permittee's wastewater treatment plant. This demand is expressed in pounds per day and is calculated by multiplying the effluent biochemical oxygen demand (BOD₅) concentration by the F-ratio and adding that to 4.57 times the effluent ammonia (NH₃-N) concentration and multiplying the sum by the flow and the constant 8.34. The UOD loading is the arithmetic average of all individual loading determinations made during the sampling period.

$$\text{U.O.D. (lbs/day)} = [\{\text{BOD}_5(\text{mg/l}) * \text{F-ratio}\} + \{\text{NH}_3\text{-N}(\text{mg/l}) * 4.57\}] * \text{Flow(MGD)} * 8.34$$

$$\text{F-ratio} = 1.5$$

Legend (See Effluent Limitations and Monitoring Requirements)

Abbreviation	Meaning/Definition	Abbreviation	Meaning/Definition
BOD ₅	5-Day Biochemical Oxygen Demand	24 Hr C	24 Hour Composite
TSS	Total Suspended Solids	Cont.	Continuous
DO	Dissolved Oxygen	Cal	Calculated
TRC	Total Residual Chlorine	Eff.	Effluent
NH ₃ -N	Ammonia Nitrogen	Inst	Instantaneous

PART II. Standard Conditions

A. Duty to comply

The permittee must comply with all conditions of the permit. Any permit noncompliance constitutes a violation of the Clean Water Act and the Pollution Control Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. The Department's approval of wastewater facility Plans and Specifications does not relieve the permittee of responsibility to meet permit limits.

1. a. The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.
- b. It is the responsibility of the permittee to have a treatment facility that will meet the final effluent limitations of this permit. The approval of plans and specifications by the Department does not relieve the permittee of responsibility for compliance.
2. Failure to comply with permit conditions or the provisions of this permit may subject the permittee to civil penalties under S.C. Code Section 48-1-330 or criminal sanctions under S.C. Code Section 48-1-320. Sanctions for violations of the Federal Clean Water Act may be imposed in accordance with the provisions of 40 CFR Part 122.41(a)(2) and (3).
3. A person who violates any provision of this permit, a term, condition or schedule of compliance contained within a valid NPDES permit, or the State law is subject to the actions defined in the State law.

B. Duty to reapply

1. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. Any POTW with a current effective permit shall submit a new application at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Department. (The Department shall not grant permission for applications to be submitted later than the expiration date of the existing permit)
2. If a privately owned treatment works as defined in Part I.N, wishes to continue an activity regulated by this permit after the expiration date of this permit, the privately owned treatment works must apply for and obtain a new permit. A privately owned treatment works with a currently effective permit shall submit a new application 180 days before the existing permit expires, unless permission for a later date has been granted by the Department. The Department may not grant permission for applications to be submitted later than the expiration date of the existing permit.

C. Need to halt or reduce activity not a defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

D. Duty to mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

E. Proper operation and maintenance

1. The permittee shall at all times properly operate and maintain in good working order and operate as efficiently as possible all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes effective performance based on design facility removals, adequate funding, adequate operator staffing and training and also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.
2. Power Failures.

In order to maintain compliance with effluent limitations and prohibitions of this permit, the permittee shall either:
 - a. provide an alternative power source sufficient to operate the wastewater control facilities;
 - b. or have a plan of operation which will halt, reduce, or otherwise control production and/or all discharges upon the reduction, loss, or failure of the primary source of power to the wastewater control facilities.
3. The permittee shall develop and maintain at the facility a complete Operations and Maintenance Manual for the waste treatment facilities and/or land application system. The manual shall be made available for on-site review during normal working hours. The manual shall contain operation and maintenance instructions for all equipment and appurtenances associated with the waste treatment facilities and land application system. The manual shall contain a general description of: the treatment process(es), the operational procedures to meet the requirements of (E)(1) above, and the corrective action to be taken should operating difficulties be encountered.
4. The permittee shall provide for the performance of daily treatment facility inspections by a certified operator of the appropriate grade as specified in Part V. The inspections shall include, but should not necessarily be limited to, areas which require visual observation to determine efficient operation and for which immediate corrective measures can be taken using the O & M manual as a guide. All inspections shall be recorded and shall include the date, time, and name of the person making the inspection, corrective measures taken, and routine equipment maintenance, repair, or

replacement performed. The permittee shall maintain all records of inspections at the permitted facility as required by the permit, and the records shall be made available for on-site review during normal working hours.

5. The name and grade of the operator of record shall be submitted to DHEC/Bureau of Water/Water Pollution Control Division prior to placing the facility into operation. A roster of operators associated with the facility's operation and their certification grades shall also be submitted with the name of the "operator-in-charge". Any changes in operator or operators shall be submitted to the Department as they occur.

6. Wastewater Sewer Systems

The requirements to properly operate and maintain sewer systems are responsibility of the system owner. The sewer system owner must:

- (1) Properly manage, operate, and maintain at all times all parts of its sewer system(s), to include maintaining contractual operation agreements to provide services, if appropriate;
- (2) Provide adequate capacity to convey base flows and peak flows for all parts of the sewer system or, if capital improvements are necessary to meet this standard, develop a schedule of short and long term improvements;
- (3) Take all reasonable steps to stop and mitigate the impact of releases of wastewater to the environment; and
- (4) Notify the Department within 30 days of a proposed change in ownership of a sewer system.

F. Permit actions

This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

G. Property rights

This permit does not convey any property rights of any sort, or any exclusive privilege nor does it authorize any injury to persons or property or invasion of other private rights, or any infringement of State or local law or regulations.

H. Duty to provide information

The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish to the Department upon request, copies of records required to be kept by this permit.

I. Inspection and entry

The permittee shall allow the Department, or an authorized representative (including an authorized contractor acting as a representative of the Department), upon presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act and Pollution Control Act, any substances or parameters at any location.

J. Monitoring and records

1. a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
- b. Flow Measurements

Where primary flow meters are required, appropriate flow measurement devices and methods consistent with accepted scientific practices shall be present and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated, and maintained to ensure that the accuracy of the measurements is consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of not greater than 10 percent from the true discharge rates throughout the range of expected discharge volumes. The primary flow device, where required, must be accessible to the use of a continuous flow recorder.

- c. The permittee shall maintain all records of inspections at the permitted facility as required by the permit, and the records shall be made available for on-site review during normal working hours.
2. Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by R.61-9.503 or R.61-9.504), the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Department at any time.

3. Records of monitoring information shall include:
 - a. The date, exact place, and time of sampling or measurements;
 - b. The individual(s) who performed the sampling or measurements;
 - c. The date(s) analyses were performed;
 - d. The individual(s) who performed the analyses;
 - e. The analytical techniques or methods used; and
 - f. The results of such analyses.
4.
 - a. Analyses for required monitoring must be conducted according to test procedures approved under 40 CFR Part 136 or, in the case of sludge use or disposal specified in R.61-9.503, unless other test procedures have been specified in the permit
 - b. Unless addressed elsewhere in this permit, the permittee shall use a sufficiently sensitive analytical method for each sample that achieves a value below the derived permit limit stated in Part III. If more than one method of analysis is approved for use, the Department recommends for reasonable potential determinations that the permittee use the method having the lowest practical quantitation limit (PQL) unless otherwise specified in Part V of the permit. For the purposes of reporting analytical data on the Discharge Monitoring Report (DMR):
 - (1) Analytical results below the PQL from methods available in 40 CFR 136 or otherwise specified in the permit shall be reported as zero (0), provided the PQL is below the value specified in Part V.G.5 and the result is also below the PQL. Zero (0) shall also be used to average results which are below the PQL. When zero (0) is reported or used to average results, the permittee shall report, in the "Comment Section" or in an attachment to the DMR, the analytical method used, the PQL achieved, and the number of times results below the PQL were reported as zero (0).
 - (2) Analytical results above the PQL from methods available in 40 CFR 136 or otherwise specified in the permit shall be reported as the value achieved, even if the PQL is below the value specified in Part V.G.5. When averaging results using a value containing a < the average shall be calculated using the value and reported as < the average of all results collected.
3.
 - (a) Mass value for a pollutant collected using a grab sample shall be calculated using the 24-hour totalized flow for the day the sample was collected (if available) or the instantaneous flow at the time of the sample and either the concentration value actually achieved or the value as determined from the procedures in (1) or (2) above, as appropriate. Grab samples should be collected at a time representative of the discharge.
 - (b) Mass value for a pollutant collected using a composite sample shall be calculated using the 24-hour totalized flow measured for the day the sample was collected and either the concentration value actually achieved or the value as determined from the procedures in (1) or (2) above, as appropriate.
5. The PCA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon

conviction, be punished by a fine of not more than \$25,000 or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment provided by the Clean Water Act is also by imprisonment of not more than 4 years.

K. Signatory requirement

1. All applications, reports, or information submitted to the Department shall be signed and certified.

a. Applications. All permit applications shall be signed as follows:

(1) For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

(a) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or

(b) The manager of one or more manufacturing, production, or operating facilities, provided, the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

(2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or

(3) For a municipality, State, Federal, or other public agency or public facility: By either a principal executive officer, mayor, or other duly authorized employee or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:

(a) The chief executive officer of the agency, or

(b) A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrator, Region IV, EPA).

b. All reports required by permits, and other information requested by the Department, shall be signed by a person described in Part II.K.1.a of this section, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

(1) The authorization is made in writing by a person described in Part II.K.1.a of this section;

- (2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) and,
 - (3) The written authorization is submitted to the Department.
- c. Changes to authorization. If an authorization under Part II.K.1.b of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part II.K.1.b of this section must be submitted to the Department prior to or together with any reports, information, or applications to be signed by an authorized representative.
 - d. Certification. Any person signing a document under Part II.K.1.a or b of this section shall make the following certification: "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."
2. The PCA provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than \$25,000 per violation, or by imprisonment for not more than two years per violation, or by both.

L. Reporting requirements

1. Planned changes

The permittee shall give written notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

- a. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in R 61-9.122.29(b); or
- b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under Part II.L.8 of this section.

- c. The alteration or addition results in a significant change in the permittee's sewage sludge or industrial sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan (included in the NPDES permit directly or by reference);

2. Anticipated noncompliance

The permittee shall give advance notice to DHEC/Bureau of Water/Water Pollution Control Division of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

3. Transfers

This permit is not transferable to any person except after notice to DHEC/Bureau of Water/NPDES Administration Section. The Department may require modification or revocation and reissuance of the permit to change the name of permittee and incorporate such other requirements as may be necessary under the Pollution Control Act and the Clean Water Act. (See section 122.61; in some cases, modification or revocation and reissuance is mandatory.)

- a. Transfers by modification. Except as provided in paragraph b of this section, a permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued (under R.61-9.122.62(e)(2)), or a minor modification made (under R.61-9.122.63(d)), to identify the new permittee and incorporate such other requirements as may be necessary under CWA.
- b. Other transfers. As an alternative to transfers under paragraph a of this section, any NPDES permit may be transferred to a new permittee if:
 - (1) The current permittee notifies the Department at least 30 days in advance of the proposed transfer date in Part II.L.3.b(2) of this section;
 - (2) The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them; and
 - (3) Permits are non-transferable except with prior consent of the Department. A modification under this subparagraph may also be a minor modification under section 122.63.

4. Monitoring reports

Monitoring results shall be reported at the intervals specified in the permit.

- a. Monitoring results (with the exception of any Annual Reporting requirements under section 503.18, section 503.28, section 503.48 or section 504.18) must be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by the Department for reporting results of monitoring of sludge use or disposal practices.

(1) Effluent Monitoring:

Effluent monitoring results obtained at the required frequency shall be reported on a Discharge Monitoring Report Form (EPA Form 3320-1). The DMR is due postmarked no later than the 28th day of the month following the end of the monitoring period. One original and one copy of the Discharge Monitoring Reports (DMRs) shall be submitted to:

S.C. Department of Health and Environmental Control
Bureau of Water/Water Pollution Control Division
Data Management Section
2600 Bull Street
Columbia, South Carolina 29201

(2) Groundwater Monitoring:

Groundwater monitoring results obtained at the required frequency shall be reported on a Groundwater Monitoring Report Form (DHEC 2110) postmarked no later than the 28th day of the month following the end of the monitoring period. One original and one copy of the Groundwater Monitoring Report Form (DHEC 2110) shall be submitted to:

S.C. Department of Health and Environmental Control
Bureau of Water/Water Monitoring, Assessment and Protection Division
Groundwater Quality Section
2600 Bull Street
Columbia, South Carolina 29201

(3) Sludge, Biosolids and/or Soil Monitoring:

Sludge, biosolids and/or soil monitoring results obtained at the required frequency shall be reported in a laboratory format postmarked no later than the 28th day of the month following the end of the monitoring period. Two copies of these results shall be submitted to:

S.C. Department of Health and Environmental Control
Bureau of Water/Water Pollution Control Division
Water Pollution Enforcement Section
2600 Bull Street
Columbia, South Carolina 29201

(4) All other reports required by this permit shall be submitted at the frequency specified elsewhere in the permit to:

S.C. Department of Health and Environmental Control
Bureau of Water/Water Pollution Control Division
Water Pollution Enforcement Section
2600 Bull Street
Columbia, South Carolina 29201

- b. If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in R.61-9.503, R.61-9.504, or as specified in the permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Department.
 - c. Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Department in the permit.
5. Twenty-four hour reporting
- a. The permittee shall report any noncompliance which may endanger health or the environment. Any information shall be provided orally to local DHEC office within 24 hours from the time the permittee becomes aware of the circumstances. During normal working hours call:

Fairfield, Lexington, Newberry, Richland	Region 3 –Columbia EQC Office	803-896-0620
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After-hour reporting should be made to the 24-Hour Emergency Response telephone number 803-253-6488 or 1-888-481-0125 outside of the Columbia area.

A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times; and, if the noncompliance has not been corrected, the anticipated time it is expected to continue and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

- b. The following shall be included as information which must be reported within 24 hours under this paragraph.
 - (1) Any unanticipated bypass which exceeds any effluent limitation in the permit. (See R.61-9.122.41(L)(6)(ii)(A)).
 - (2) Any upset which exceeds any effluent limitation in the permit.
 - (3) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Department in the permit to be reported within 24 hours (See R 61-9.122.44(g)). If the permit contains maximum limitations for any of the pollutants listed below, a violation of the maximum limitations shall be reported orally to the DHEC Office of Water/Water Pollution Control Division within 24 hours or the next business day.
 - (i) Total Residual Chlorine (mg/l)
 - (ii) Copper

- c. The Department may waive the written report on a case-by-case basis for reports under Part II.L.5.b of this section if the oral report has been received within 24 hours.

6. Other noncompliance.

The permittee shall report all instances of noncompliance not reported under Part II.L.4 and 5 of this section and Part IV at the time monitoring reports are submitted. The reports shall contain the information listed in Part II.L.5 of this section.

7. Other information.

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Department, it shall promptly submit such facts or information.

8. Domestic treatment works

All POTWs must provide adequate notice to the Department of the following:

- (1) Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to sections 301 or 306 of CWA if it were directly discharging those pollutants; and
- (2) Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
- (3) For purposes of this paragraph, adequate notice shall include information on:
 - (i) The quality and quantity of effluent introduced into the POTW, and
 - (ii) Any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

M. Bypass

- 1. Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Part II.M.2 and 3 of this section.
- 2. Notice.
 - a. Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible, at least ten days before the date of the bypass to DHEC/Bureau of Water/Water Facilities Permitting Division.
 - b. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Part II(L)(5) of this permit (24-hour reporting).

3. Prohibition of bypass

- a. Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless:
 - (1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - (2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 - (3) The permittee submitted notices as required under Part II.M.2 of this section.
- b. The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the three conditions listed above in Part II.M.3.a of this section.

N. Upset

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Part II.N.2 of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
2. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - a. An upset occurred and that the permittee can identify the cause(s) of the upset;
 - b. The permitted facility was at the time being properly operated; and
 - c. The permittee submitted notice of the upset as required in Part II.L.5.b(2) of this section.
 - d. The permittee complied with any remedial measures required under Part II.D of this section.
3. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

O. Misrepresentation of Information

1. Any person making application for a NPDES discharge permit or filing any record, report, or other document pursuant to a regulation of the Department, shall certify that all information contained in such document is true. All application facts certified to by the applicant shall be considered valid conditions of the permit issued pursuant to the application.

2. Any person who knowingly makes any false statement, representation, or certification in any application, record, report, or other documents filed with the Department pursuant to the State law, and the rules and regulations pursuant to that law, shall be deemed to have violated a permit condition and shall be subject to the penalties provided for pursuant to 48-1-320 or 48-1-330.

Part III. Limitations and Monitoring Requirements

A. Effluent Limitations and Monitoring Requirements

- During the period beginning on the effective date of this permit and lasting through the expiration date, the permittee is authorized to discharge from outfall serial number 001. Such discharge shall be limited and monitored by the permittee as specified below:

Following limits are based on the average design flow of: 110MGD									
EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS						MONITORING REQUIREMENTS		
	Limits per Day			Other Units			Measurement Frequency	Sample Type	Sample Point
	Monthly Average	Weekly Average	Daily Maximum	Monthly Average	Weekly Average	Daily Maximum			
pH	—	—	—	NR (NR)	NR (NR)	—	Daily	Cont	Eff.
BOD ₅	15012	22518	—	30 mg/l	45 mg/l	—	Daily	24 Hr C	Eff.
SS	15012	22518	—	30 mg/l	45 mg/l	—	Daily	24 Hr C	Eff.
NH ₃ -N (Mur-Ox)	8.82	13.23	—	16.75 mg/l	25.13 mg/l	—	Daily	24 Hr C	Eff.
Nitrate-N (N ₃ -Tech)	11005	15012	—	20 mg/l	30 mg/l	—	Daily	24 Hr C	Eff.
Total Chlorine	—	—	—	200/100 ml	—	300/100 ml	Daily	Grab	Eff.
TRC	50.01	—	85.01	0.10 mg/l	—	0.17 mg/l	Daily	Grab	Eff.
BOD ₅	—	—	—	5.0 mg/l Maximum at all times			Daily	Grab	Eff.
pH	—	—	—	6.0 - 8.5 Standard Unit			Daily	Grab	Eff.
Total Hardness (CaCO ₃)	—	—	—	85% (Standard Unit)	—	—	1/Week	Grab	—
SS (% Solids)	—	—	—	85% (Standard Unit)	—	—	1/Month	Grab	—
Total Phosphorus	MR	MR	—	MR mg/l	MR mg/l	—	1/Month	24 Hr C	Eff.
Nitrite Nitrogen	MR	MR	—	MR mg/l	MR mg/l	—	1/Month	24 Hr C	Eff.
Total Kjeldahl Nitrogen (TKN)	MR	MR	—	MR mg/l	MR mg/l	—	1/Month	24 Hr C	Eff.
Total Sulfate	MR	MR	—	MR mg/l	MR mg/l	—	1/Month	Grab	Eff.
Total Copper (Cu)	22.52	—	37.02	0.045 mg/l	—	0.055 mg/l	1/Month	24 Hr C	Eff.
Total Mercury	MR	—	MR	MR mg/l	—	MR mg/l	1/year	24 Hr C	Eff.
TDH	57914	86211	—	—	—	—	Monthly	Grab	Eff.

* See Part V.H.

§ This should be reported as a sum of TKN and Nitrate/Nitrite Nitrogen sampling. See Part V.G.5.

B. Whole Effluent Toxicity Limitations and Monitoring Requirements

1. During the period beginning on the effective date of this permit and lasting until the expiration date of this permit, the permittee is authorized to discharge from outfall serial number 001.

Such discharge shall be limited and monitored by the permittee as specified below:

EFFLUENT CHARACTERISTICS	DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS	
	Monthly Average ¹	Daily Maximum ¹	Measurement Frequency	Sample Type
WET Chronic Testing @ CTC = 11%	25 % ²	40 % ²	1/Six Month ³	24 hour composite
Whole Effluent Toxicity Chronic Testing - Reproduction @ CTC=11%	MR % ²	MR % ²	1/Six Month ³	24 hour composite
Whole Effluent Toxicity Chronic Testing - Mortality @ CTC = 11%	MR % ²	MR % ²	1/Six Month ³	24 hour composite

¹Monthly average is defined as the mean of percent effects for all valid tests performed during the monthly monitoring period following the procedures given in Part V.B. Maximum is defined as the highest percent effect of all valid tests performed during the monitoring period following the procedures in Part V.B.

² See Part V.B.1 for additional toxicity reporting requirements. MR = Monitor and Report.

³ Valid tests must be separated by at least 7 days (from the time the first sample is taken to start one test until the time the first sample is taken to start a different test). There is no restriction on when a new test may begin following a failed or invalid test.

- a. Samples used to demonstrate compliance with the discharge limitations and monitoring requirements specified above shall be taken at or near the final point-of-discharge but, prior to mixing with the receiving waters or other waste streams.
- b. If only one valid test is conducted during a monitoring period, results from that test must be used to assess compliance with the monthly average limit for the monitoring period as well as the maximum limit. If more than one valid test is completed during the monitoring period, the mean percent inhibition of all valid tests must be used to demonstrate compliance with the monthly average limit for the monitoring period.
- c. Valid test results from split samples shall be reported on the DMR. For reporting an average on the DMR, individual results for each test from a split sample are averaged first to determine a sample value. That value is averaged with other sample results obtained in the monthly reporting period and the monthly average of all sample results reported. For reporting the maximum on the DMR, the individual valid results for each test from a split sample are averaged first to determine a sample value. That value is compared to other sample results obtained in the reporting period and the maximum of all sample results reported. For the purpose of reporting, split samples are reported as a single sample regardless of the number of times it is split. All laboratories used shall be identified on the DMR attachment.

C. Groundwater Requirements

- a. Each of three (3) ground water monitoring wells shall be sampled by the permittee as specified below:

PARAMETER	MEASUREMENT FREQUENCY	SAMPLE METHOD
Total phosphorus	Annually	Pump or Bailer Method
Ammonia	Annually	Pump or Bailer Method
TKN	Annually	Pump or Bailer Method
Nitrate	Annually	Pump or Bailer Method
Alkalinity	Annually	Pump or Bailer Method
Field pH	Annually	Pump or Bailer Method
TDS	Annually	Pump or Bailer Method
Watertable Elevation	Annually	Tape
Field Specific Conductance	Annually	Pump or Bailer Method
Field Temperature	Annually	Pump or Bailer Method
Arsenic	Annually	Pump or Bailer Method
Barium	Annually	Pump or Bailer Method
Cadmium	Annually	Pump or Bailer Method
Chromium	Annually	Pump or Bailer Method
Lead	Annually	Pump or Bailer Method
Mercury	Annually	Pump or Bailer Method
Selenium	Annually	Pump or Bailer Method

- b. Background groundwater quality data must be submitted prior to final approval to place into operation.
- c. Sample collection methods shall be in accordance with DHEC publication "Groundwater Sampling Methods" dated October, 1981, or the most recent revision.
- d. All groundwater monitoring wells must be properly maintained at all times.

D. Sludge Disposal Requirements

1. Letter Permit Incorporation

- a. The grit and screenings letter permit issued by SCDHEC Bureau of Solid and Hazardous Waste Management dated October 12, 1989 will be incorporated into and become a part of this permit. All conditions included in this letter permit become a requirement of this NPDES permit.
- b. The sludge/ash disposal letter permit issued by SCDHEC Bureau of Solid and Hazardous Waste Management dated January 23, 1992 will be incorporated into and become a part of this permit. All conditions included in this letter permit shall become a requirement of this NPDES permit.

2. Grit and Screenings Transportation and Removal

- a. Bar screenings and grit will be removed from this facility and transported to the Richland County Landfill, #402401-1101 (Formerly 402400-1101 and DWP-126) under the following conditions:
- 1) All containers for collection and transportation shall be structurally sound in every respect and shall be so constructed as to prevent leakage or spillage of any kind while in the process of pumping, storage, or transit.
 - 2) The total quantity of grit and screening shall not exceed the available capacity at landfill site per year.
 - 3) The Permittee is responsible for the handling, transportation, and disposal of all materials from the various source(s) transported to the approved disposal site. This responsibility includes, but is not limited to spills, accidents, unauthorized leaks, or other hazards which may occur.

3. Ash & Sludge Transportation and Disposal

Ash and/or Sludge solids will be removed from this facility and transported to the Richland County Landfill, #402401-1101 (Formerly 402400-1101 and DWP-126) under the following conditions:

- a. All containers for sludge collection and transportation shall be structurally sound in every respect and shall be so constructed as to prevent leakage or spillage of any kind while in the process of pumping, storage, or transit.
- b. The total volume of waste transported shall not exceed the available capacity at landfill site per year.
- c. The hauling of sludge may be revoked or suspended after notice and opportunity for a hearing when, in the opinion of the South Carolina Department of Health and Environmental Control, the Permittee has failed to comply with the permitting, hauling, transportation, or disposal requirements
- d. The Permittee is responsible for the handling, transportation, and disposal of all sludge from the various source(s) transported to the approved disposal site. This responsibility includes, but is not limited to spills, accidents, unauthorized leaks, or other hazards which may occur.

3. Disposal Site for Grit, Screenings, Ash & Sludge

The Permittee shall submit letter of acceptance from disposal site to the Department to request a change of the disposal site if in the future the facility disposes of Grit, Screenings, Ash & Sludge at different landfill sites.

E. Land Application Requirements (effluent)

Not applicable to this permit.

F. Instream Biological Assessment

Not applicable to this permit.

G. Other Requirements

Any bypass of the treatment facility, which is not included in the effluent monitored above, is to be monitored for flow and all other parameters, except acute and chronic whole effluent toxicity. For parameters other than flow, at least one grab sample per day shall be monitored. Daily flow shall be monitored or estimated, as appropriate, to obtain reportable data. All monitoring results shall be reported on a DMR Form.

Part IV. Schedule of Compliance

A. Schedule(s)

1. Special Projects Compliance. The following special projects schedule shall be utilized to upgrade the treatment facility as major wastewater CIP (Capital improvement Project):

a. Headworks (Those items contained in SCDHEC Construction Permit #32454-WW):

- The Metro Headworks project (SS6722) started construction on July 6, 2010 and must complete this construction by August 31, 2013.

b. Broad River Pump Station Improvements:

- The Broad River Pump Station (SS7101) started construction on June 1, 2010 and must complete this construction by July 31, 2011.

c. North Columbia Pump Station Improvements:

- Beginning Construction by October 1, 2010.
- Complete Construction by November 30, 2011.

d. Crane Creek Sewer Outfall Improvements (Those items contained in SCDHEC Construction Permit #32454-WW):

- Beginning Construction by October 1, 2010.
- Complete Construction by May 31, 2011.

e. Metro WWTP Train 1 Aeration Improvements (Temporary – SS7154)

The temporary improvements will include Train 1 replacement of 14 aerator/mixer units (7 in each basin, 75 hp each). The new aeration equipment designed to improve reliability of aeration within Train 1.

- Beginning Construction by December 1, 2010.
- Complete Construction by August 31, 2011.

f. Metro WWTP Train 1 Aeration Improvements (Permanent – SS7153)

The permanent improvements will include replacement of Train 1 aeration system with new biological nutrient removal (BNR) process designed to improve BOD and ammonia removal.

- Beginning Construction by December 1, 2012.
- Complete Construction by December 31, 2015.

g. Special Project Compliance Schedules

Pursuant to R.61-9.122.62(d)(4), the permittee may request a modification of the special projects compliance schedule(s) above if the Department determines that good cause exists for modification of a compliance schedule or terms and conditions of a permit, such as an act of

God, strike, flood, or materials shortage or other events over which the permittee has little or no control and for which there is no reasonably available remedy. However, in no case may an NPDES compliance schedule be modified to extend beyond an applicable CWA statutory deadline.

The permittee shall provide an update every six (6) months on the status of the improvements listed in items the Special Projects list I (items a thru f).

2. The permittee shall update their current Public Notification Program in accordance with the following schedule:
 - a. Within sixty (60) days from the effective date of this permit, the permittee shall submit a copy of their current Public Notification Program to the Department's Division of Water Pollution Control for review and approval. The notification program, at a minimum, shall include procedures to notify the public when the wastewater system malfunctions (including collection, interceptor or pump stations), operational problems or equipment failures that could result in effluent daily maximum fecal coliform violations occur, or if measured effluent fecal coliform count is greater than 2000/100ml. This updated notification program requirement would be in addition to events such as sewer system overflows.
 - b. The permittee shall implement the revised public notification program within sixty (60) days from the date the revised notification program is approved by the Department, and must be maintained for the life of the permit.
3. The permittee shall achieve compliance with the effluent limitations specified for discharges in accordance with the following schedules:
 - a. Within 120 days from the effective date of this permit, the permittee shall submit to the Department for approval a comprehensive update to the pretreatment program previously approved (You may provide any document recently approved by EPA Region IV). This document shall include the following:
 - 1). INTRODUCTION (usually taken from the original program and includes the following: purpose, objectives, legal authority requirement, procedures, definitions)
 - 2). ADMINISTRATIVE FUNCTIONS
 - Method for Requiring Adherence to Pretreatment Requirements
 - Establishment of a Permit System
 - Approval of Pretreatment Systems
 - Developing Discharge Limits
 - Combined Wastestream Formula
 - Pollutant Removal Credits
 - Notification of Pretreatment Standards and Requirements
 - Investigations of Non-Compliance
 - Enforcement Response Guide

- 3). MONITORING PROGRAM REQUIREMENTS
 - Monitoring Requirements for Dischargers
 - Reporting Requirements for Dischargers
 - Discharger Report Review and Recordkeeping Procedure
 - Compliance Monitoring
 - Inspection Program
- 4). FUNDING FOR PROGRAM
- 5). ORGANIZATION & STAFFING
 - Organizational Chart
- 6). ATTACHMENTS
 - Blank Copy of Discharge Permit Application/Questionnaire
 - Blank Copy of Non-Domestic Wastewater Discharge Permit (including all standard conditions)
 - Blank Copy of Letter of Agreement Authorizing Discharge of Non-Domestic Wastes
 - Blank Copies of Self-Monitoring Report Forms
 - Copy of current R.61-9.403 - S. C. General Pretreatment Regulations
 - Attorney's Review of Legal Authority
 - Sewer Use Ordinance (Copy approved by EPA Region IV)
 - NPDES Permit
 - Headworks Analysis
 - Enforcement Response Guide (Copy approved by EPA Region IV)
 - Phase IA Update
 - Non-Domestic Waste Survey Questionnaires for All Regulated Industrial Users
 - Listing of Categorical Industries and Applicable Categories

 - Copies of All Industrial Discharge Permits (cover sheet, limits pages, special conditions)
 - Copies of All Letters of Acceptance, if applicable.
4. The permittee shall achieve compliance with the Whole Effluent Toxicity limitations specified for discharges in accordance with the following schedules:

Not applicable to this permit.
5. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each scheduled date.